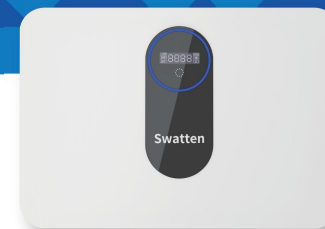


H1 Series

Single Phase Hybrid Inverter (HV)



H1 Series

Single Phase Hybrid Inverter (HV)

Technical data

Type Designation	SIH-3kW-SH	SIH-3.6kW-SH	SIH-4kW-SH	SIH-5kW-SH	SIH-6kW-SH
Input (PV)					
Recommend max. PV input power	10000 Wp	10700 Wp	11000 Wp	12000 Wp	13000 Wp
Max. PV input voltage	600V	600V	600V	600V	600V
Min. operating PV voltage	40V	40V	40V	40V	40V
Start-up input voltage	50V	50V	50V	50V	50V
Rated PV input voltage	360V	360V	360V	360V	360V
No. of independent MPPT inputs	2	2	2	2	2
Default No. of PV strings per MPPT	1	1	1	1	1
Max. PV input current	16A	16A	16A	16A	16A
Max. DC short-circuit current	20A	20A	20A	20A	20A
Input/Output (AC)					
Max. AC input power from grid	10700 VA	10700 VA	11000 VA	12000 VA	13000 VA
Rated AC output power	3680 W	3680 W	4000 W	5000 W	6000 W
Max. AC output power	3680 VA	3680 VA	4000 VA	5000 VA	6000 VA
Rated AC output current (at 230V)	16 A	16 A	17.4 A	21.8 A	26.1 A
Max. AC output current	16 A	16 A	18.2 A	22.8 A	27.3 A
Rated AC voltage	220V/230V/240V	220V/230V/240V	220V/230V/240V	220V/230V/240V	220V/230V/240V
AC voltage range	154V~276V	154V~276V	154V~276V	154V~276V	154V~276V
Rated grid frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Grid frequency range	45~55Hz/55~65Hz	45~55Hz/55~65Hz	45~55Hz/55~65Hz	45~55Hz/55~65Hz	45~55Hz/55~65Hz
Harmonic (THD)	<3%	<3%	<3%	<3%	<3%
Power factor at rated power	>0.99	>0.99	>0.99	>0.99	>0.99
Adjustable power factor	adj. 0.8 overexcited/leading to 0.8 underexcited/lagging	adj. 0.8 overexcited/leading to 0.8 underexcited/lagging	adj. 0.8 overexcited/leading to 0.8 underexcited/lagging	adj. 0.8 overexcited/leading to 0.8 underexcited/lagging	adj. 0.8 overexcited/leading to 0.8 underexcited/lagging
Grid Type	Single phase	Single phase	Single phase	Single phase	Single phase
Efficiency					
Max. efficiency	97.30%	97.50%	97.30%	97.30%	97.30%
European efficiency	97.00%	97.00%	97.00%	97.00%	97.00%
Protection&Function					
Grid monitoring	Yes	Yes	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes	Yes	Yes
AC short circuit protection	Yes	Yes	Yes	Yes	Yes
Leakage current protection	Yes	Yes	Yes	Yes	Yes
Surge Protection	DC type II / AC type II	DC type II / AC type II	DC type II / AC type II	DC type II / AC type II	DC type II / AC type II
DC switch (PV)	Yes	Yes	Yes	Yes	Yes
DC fuse (battery)	Yes	Yes	Yes	Yes	Yes
Battery input reverse polarity protection	Yes	Yes	Yes	Yes	Yes
Battery Data					
Battery Type	Li-ion battery	Li-ion battery	Li-ion battery	Li-ion battery	Li-ion battery
Battery voltage	80~460V	80~460V	80~460V	80~460V	80~460V
Max. charge current	30 A	30 A	30 A	30 A	30 A
Max. discharge current	30 A	30 A	30 A	30 A	30 A
Max. charge power	6600 W	6600 W	6600 W	6600 W	6600 W
Max. discharge power	6600 W	6600 W	6600 W	6600 W	6600 W
General Data					
Dimensions (W*H*D)	500*350*180mm	500*350*180mm	500*350*180mm	500*350*180mm	500*350*180mm
Weight	≤20kg	≤20kg	≤20kg	≤20kg	≤20kg
Mounting method	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket
Topology (Solar/Battery)	Transformerless/Transformerless	Transformerless/Transformerless	Transformerless/Transformerless	Transformerless/Transformerless	Transformerless/Transformerless
Degree of protection	IP65	IP65	IP65	IP65	IP65
Operating ambient temperature range	-25°C~60°C	-25°C~60°C	-25°C~60°C	-25°C~60°C	-25°C~60°C
Allowable relative humidity range	0~100%	0~100%	0~100%	0~100%	0~100%
Cooling method	Natural convection	Natural convection	Natural convection	Natural convection	Natural convection
Max. operating altitude	4000m	4000m	4000m	4000m	4000m
Display	LED indicator	LED indicator	LED indicator	LED indicator	LED indicator
Communication	RS485/CAN/WLAN	RS485/CAN/WLAN	RS485/CAN/WLAN	RS485/CAN/WLAN	RS485/CAN/WLAN
DJ/DO	DJx1/DOx1/DRM	DJx1/DOx1/DRM	DJx1/DOx1/DRM	DJx1/DOx1/DRM	DJx1/DOx1/DRM
DC connection type	MC4	MC4	MC4	MC4	MC4
Battery connection type	MC4	MC4	MC4	MC4	MC4
AC connection type	Screws & Fasteners	Screws & Fasteners	Screws & Fasteners	Screws & Fasteners	Screws & Fasteners
Backup Data (on-grid)					
Rated output power for backup load	6000 W	6000 W	6000 W	6000 W	6000 W
Rated output current for backup load	27A	27A	27A	27A	27A
Backup Data (off-grid model)					
Rated voltage	220V/230V/240V (+2%)	220V/230V/240V (+2%)	220V/230V/240V (+2%)	220V/230V/240V (+2%)	220V/230V/240V (+2%)
Frequency range	50Hz/60Hz(±0.5%)	50Hz/60Hz(±0.5%)	50Hz/60Hz(±0.5%)	50Hz/60Hz(±0.5%)	50Hz/60Hz(±0.5%)
Total output THDV for liner load	≤2%	≤2%	≤2%	≤2%	≤2%
Switch time to emergency mode	≤10 ms	≤10 ms	≤10 ms	≤10 ms	≤10 ms
Rated output power	3000 W/3000 VA	3680 W/3680 VA	4000 W/4000 VA	5000 W/5000 VA	6000 W/6000 VA
Peak output power	8400 VA, 10s	8400 VA, 10s	8400 VA, 10s	8400 VA, 10s	8400 VA, 10s

KEY FEATURES

OUTSTANDING PERFORMANCE

- **50V** extra low start-up voltage
- **210~330%** DC input oversizing
- **MAX. 6.6kW** charge / discharge power

FLEXIBLE APPLICATIONS

- **MAX. 16A** PV Input Current
- **< 10ms** off-grid switching

INTELLIGENT MULTIPLE OPERATING MODES AVAILABLE

- Self-generated, zero power feeder, VPP, battery-free, battery-free & gridless

SUPERB OFF-GRID LOAD

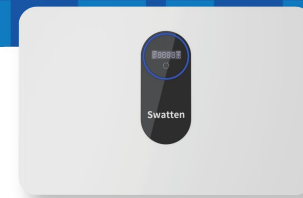
- Whole-home back up
- Rated output power **6kW/6kVA**
- Peak output power **8400VA**

FRIENDLY DESIGN

- Die-casting design, fanless design, low noise
- Support AFCI
- Remote troubleshooting and program upgrading

H1 Series

Single Phase Hybrid Inverter (LV)



KEY FEATURES

OUTSTANDING PERFORMANCE

- 42~59V wide battery voltage range
- **Max. 5kW** charging and discharging
- 240% DC input oversizing
- 50V extra low start-up voltage

FLEXIBLE APPLICATION

- Support multi-parallel connection
- Equipped with DI/DO port
- **Max. 16A** DC input

INTELLIGENT MULTIPLE OPERATING MODES AVAILABLE

- Self-generated, zero power feeder, VPP, battery-free, battery-free & gridless

SUPERB OFF-GRID LOAD

- Whole-home backup
- Support half-wave load and shock load
- < 10ms off-grid switching

FRIENDLY DESIGN

- Die-casting design, fanless design, low noise
- Support AFCI
- Remote troubleshooting and program upgrading

H1 Series

Single Phase Hybrid Inverter (LV)

Technical data

Type Designation	SIH-3.6kW-SL	SIH-5kW-SL	SIH-6kW-SL
Input (DC)			
Recommend max. PV input power	8700 Wp	10000 Wp	11000 Wp
Max. PV input voltage	600V	600V	600V
Min. operating PV voltage	40V	40V	40V
Start-up input voltage	50V	50V	50V
Rated PV input voltage	360V	360V	360V
MPPT Voltage Range	40~560V	40~560V	40~560V
No. of independent MPPT inputs	2	2	2
Default No. of PV strings per MPPT	1	1	1
Max. PV input current	16A	16A	16A
Max. DC short-circuit current	20A	20A	20A
Input/Output (AC)			
Max. AC input power from grid	8700 VA	10000 VA	11000 VA
Rated AC output power	3680 W	5000 W	6000 W
Max. AC output power	3680 VA	5000 VA	6000 VA
Max. AC output current	16.7A	22.8 A	27.3 A
Rated AC voltage	220V/230V/240V	220V/230V/240V	220V/230V/240V
AC voltage range	154V~276V	154V~276V	154V~276V
Rated grid frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Grid frequency range	45~55Hz/55~65Hz	45~55Hz/55~65Hz	45~55Hz/55~65Hz
Harmonic (THD)	< 3%	< 3%	< 3%
Power factor at rated power	> 0.99	> 0.99	> 0.99
Adjustable power factor	adj. 0.8. overexcited / leading to 0.8 underexcited / lagging	adj. 0.8. overexcited / leading to 0.8 underexcited / lagging	adj. 0.8. overexcited / leading to 0.8 underexcited / lagging
Grid Type	Single phase	Single phase	Single phase
Efficiency			
Max. efficiency	97.5%	97.7%	97.7%
European efficiency	97%	97.3%	97.3%
Protection&Function			
Grid monitoring	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes
AC short circuit protection	Yes	Yes	Yes
Leakage current protection	Yes	Yes	Yes
Surge Protection	DC type II / AC type II	DC type II / AC type II	DC type II / AC type II
DC switch(PV)	Yes	Yes	Yes
DC fuse(battery)	Yes	Yes	Yes
Battery input reverse polarity protection	Yes	Yes	Yes
Battery Data			
Battery Type	Li-ion battery	Li-ion battery	Li-ion battery
Battery voltage	42~59V	42~59V	42~59V
Max. charge current	100 A	100 A	100 A
Max. discharge current	100 A	100 A	100 A
Max. charge power	5000 W	5000 W	5000 W
Max. discharge power	5000 W	5000 W	5000 W
General Data			
Dimensions (W*H*D)	600*365*194mm	600*365*194mm	600*365*194mm
Weight	≤23.5kg	≤23.5kg	≤23.5kg
Mounting method	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket
Topology	Transformerless	Transformerless	Transformerless
Degree of protection	IP65	IP65	IP65
Operating ambient temperature range	-25°C~60°C	-25°C~60°C	-25°C~60°C
Allowable relative humidity range	0~100%	0~100%	0~100%
Cooling method	Natural convection	Natural convection	Natural convection
Max. operating altitude	4000m	4000m	4000m
Display	LED indicator	LED indicator	LED indicator
Communication	RS485/CAN/WLAN	RS485/CAN/WLAN	RS485/CAN/WLAN
DI/DO	DI×1/DO×1/DRM	DI×1/DO×1/DRM	DI×1/DO×1/DRM
DC connection type	MC4	MC4	MC4
Battery connection type	Screws & Fasteners	Screws & Fasteners	Screws & Fasteners
AC connection type	Screws & Fasteners	Screws & Fasteners	Screws & Fasteners
Backup Data(on-grid)			
Rated output power for backup load	6000 W	6000 W	6000 W
Rated output current for backup load	27A	27A	27A
Backup Data(off-grid model)			
Rated voltage	220V/230V/240V(±2%)	220V/230V/240V(±2%)	220V/230V/240V(±2%)
Frequency range	50Hz/60Hz(±0.5%)	50Hz/60Hz(±0.5%)	50Hz/60Hz(±0.5%)
Total output THDV for liner load	≤2%	≤2%	≤2%
Switch time to emergency mode	≤10 ms	≤10 ms	≤10 ms
Rated output power	3680 W / 3680 VA	5000 W / 5000 VA	5000 W / 6000 VA
Peak output power	8400 VA, 10s	8400 VA, 10s	8400 VA, 10s

H1 Series

Three Phase Hybrid Inverter (5-10) kW



KEY FEATURES

OUTSTANDING PERFORMANCE

- **180V** extra low start-up voltage
- Max. Efficiency **98.4%**
- **MAX. 10.6kW** charge / discharge power
- Three-phase asymmetrical output under **100%** unbalanced loads

FLEXIBLE APPLICATION

- **150%** DC input oversizing
- **MAX. 48A** PV Input Current
- **< 10ms** off-grid switching

INTELLIGENT MULTIPLE OPERATING MODES AVAILABLE

- Self-generated, zero power feeder, VPP, battery-free, battery-free & gridless

SUPERB OFF-GRID LOAD

- Whole-home backup
- Rated output power **10kW/10kVA**
- Peak output power **12000VA**

FRIENDLY DESIGN

- Die-casting design, fanless design, low noise
- Support AFCI
- Remote troubleshooting and program upgrading

H1 Series

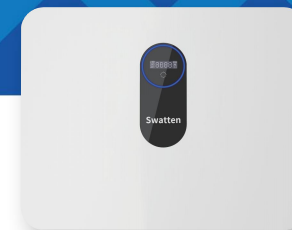
Three Phase Hybrid Inverter (5-10) kW

Technical data

Type Designation	SiH-5kW-TH	SiH-6kW-TH	SiH-8kW-TH	SiH-10kW-TH
Input (DC)				
Recommend max. PV input power	7500 Wp	9000 Wp	12000 Wp	15000 Wp
Max. PV input voltage	1000V	1000V	1000V	1000V
Start-up input voltage	180V	250V	250V	250V
Rated PV input voltage	600V	600V	600V	600V
MPPT voltage range	150-950V	200-950V	200-950V	200-950V
No. of independent MPPT inputs	2	2	2	2
Default No. of PV strings per MPPT	1\1	1\1	1\1	1\2
Max. input current	32A(16A/16A)	32A(16A/16A)	32A(16A/16A)	48A(16A/32A)
Max. input short-circuit current	40A(20A/20A)	40A(20A/20A)	40A(20A/20A)	60A(20A/40A)
Input/Output (AC)				
Max. AC input power from grid	12500 VA	15000 VA	18600 VA	20600 VA
Rated AC output power	5000 W	6000 W	8000 W	10000 W
Max. AC output power	5500 VA	6600 VA	8800 VA	11000 VA
Rated AC output current	7.6A	9.1A	12.1A	15.2A
Max. AC output current	8.4A	10A	13.3A	16.7A
Rated AC voltage	3/N/PE 220V/380V 230V/400V 240V/415V			
AC voltage range	270V~480V			
Rated grid frequency	50Hz/60Hz			
Grid frequency range	45~55Hz/55~65Hz			
Harmonic(THD) at rated burden	≤ 3%			
Power factor at rated power	> 0.99			
Adjustable power factor	adj.0.8.overexcited/leading to 0.8 underexcited/lagging			
Grid Type	Three-phase			
Efficiency				
Max. efficiency	98.00%	98.20%	98.40%	98.40%
European efficiency	97.20%	97.50%	97.90%	97.90%
Protection&Function				
LVRT	Yes	Yes	Yes	Yes
Grid monitoring	Yes	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes	Yes
AC short circuit protection	Yes	Yes	Yes	Yes
Leakage current protection	Yes	Yes	Yes	Yes
Surge protection	DC type II / AC type II	DC type II / AC type II	DC type II / AC type II	DC type II / AC type II
DC switch (PV)	Yes	Yes	Yes	Yes
DC fuse (battery)	Yes	Yes	Yes	Yes
Battery input reverse polarity protection	Yes	Yes	Yes	Yes
Battery Data				
Battery Type	Li-ion battery			
Battery voltage	150-600V			
Max. charge current	30 A			
Max. discharge current	30 A			
Max. charge power	7500 W	9000 W	10600 W	10600 W
Max. discharge power	6000 W	7200 W	10600 W	10600 W
General Data				
Dimensions(W*H*D)	450*550*185mm			
Weight	31kg			
Mounting method	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket
Topology(Solar/Battery)	Transformerless/Transformerless	Transformerless/Transformerless	Transformerless/Transformerless	Transformerless/Transformerless
Degree of protection	IP65			
Operating ambient temperature range	-25°C~60°C, No derating below 45 °C	-25°C~60°C, No derating below 45 °C	-25°C~60°C, No derating below 45 °C	-25°C~60°C, No derating below 45 °C
Allowable relative humidity range	0~100%			
Cooling method	Natural convection	Natural convection	Natural convection	Natural convection
Max. operating altitude	4000m			
Display	LED			
Communication	RS485/CAN/WLAN	RS485/CAN/WLAN	RS485/CAN/WLAN	RS485/CAN/WLAN
DI/DO	DIx1/DOx1/DRM	DIx1/DOx1/DRM	DIx1/DOx1/DRM	DIx1/DOx1/DRM
DC connection type	MC4			
Battery connection type	MC4			
AC connection type	Plug and play connector			
Backup Data(off-grid mode)				
Rated voltage	3 / N / PE, 220 Vac / 230 Vac / 240 Vac (±2%)			
Frequency range	50Hz/60Hz(±0.5%)			
Total output THDV for liner load	≤2%			
Switch time to emergency mode	≤10 ms			
Rated output power	5000 W / 5000 VA	6000 W / 6000 VA	8000 W / 8000 VA	10000 W / 10000 VA
Peak output power	6000VA 5min/10000 VA,10s	7200VA 5min/10000 VA,10s	9600 VA,5min	12000 VA,5min

H1 Series

Three Phase Hybrid Inverter (15-30) kW



H1 Series

Three Phase Hybrid Inverter (15-30) kW

Technical data

Type Designation	SiH-15kW-TH	SiH-20kW-TH	SiH-22kW-TH	SiH-25kW-TH	SiH-30kW-TH
Input (PV)					
Recommended max. PV input power	30000 W	40000 W	44000 W	50000 W	60000 W
Max. PV input voltage	1000 V	1000 V	1000 V	1000 V	1000 V
Min. PV input voltage / Startup input voltage			180 V		
Rated PV input voltage			650 V		
MPPT voltage range			150 V- 950 V		
No. of independent MPPT inputs			3		
No. of PV strings per MPPT	2/1/1		2/2/1		2/2/2
Max. PV input current	64A (32A / 16A / 16 A)		80A (32A/32A/16A)		96A (32A/32A/32A)
Max. DC short-circuit current	80A (40A / 20A / 20A)		100A (40A/40A/20A)		120A (40A/40A/40A)
Battery					
Battery type			Li-ion battery		
Battery voltage			100 V - 700 V		
Max. charge / discharge current			50 A * / 50 A		
Max. charge / discharge power	30000 W / 15000 W	30000 W / 20000 W	30000 W / 22000 W	30000 W / 25000 W	30000 W / 30000 W
Input / Output (AC)					
Max. AC input power	15000 W	20000 W	22000 W	25000 W	30000 W
Max. AC power from grid	30000 W / 30000 VA		40000 W / 40000 VA		45000 VA
Rated AC output power	15000 W	20000 W	22000 W	25000 W	30000 W
Max. AC output apparent power	15000 VA	20000 VA	22000 VA	25000 VA	30000 VA
Rated AC output current	21.8 A	29 A	31.9 A	36.3 A	43.5 A
Max. AC output current	22.8 A	30.4 A	33.4 A	37.9 A	45.5 A
Rated AC voltage			3 / N / PE, 220 / 380 V; 230 / 400 V; 240 / 415 V		
AC voltage range			270 V - 480 V		
Rated grid frequency			50 Hz / 60 Hz		
Grid frequency range			45 Hz-55 Hz / 55 Hz-65 Hz		
Harmonic (THD)			< 3% (of rated power)		
Power factor at Rated power / Adjustable power factor			> 0.99 / 0.8 leading to 0.8 lagging		
Backup Data					
Rated voltage			3 / N / PE, 220 Vac / 230 Vac / 240 Vac (±2%)		
Frequency range			50Hz / 60Hz		
Total harmonic factor output voltage(Linear load)			2%		
Back-up switching time			< 10 ms		
Rated output power	15000 W / 15000 VA	20000 W / 20000 VA	22000 W / 22000 VA	25000 W / 25000 VA	30000 W / 30000 VA
Peak output power **	22000 W/22000 VA 10s		36500 W / 36500 VA 10s		42000 W/42000 VA 10s
Rated output power for backup load during on grid mode	30000 W / 30000 VA		40000 W / 40000 VA		45000 W / 45000 VA
Efficiency					
Max. efficiency / European efficiency	98.3 % / 97.9 %	98.3 % / 97.9 %	98.3 % / 97.9 %	98.3 % / 97.9 %	98.3 % / 97.9 %
Protection & Function					
Grid monitoring	Yes	Yes	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes	Yes	Yes
AC short-circuit protection	Yes	Yes	Yes	Yes	Yes
Leakage current protection	Yes	Yes	Yes	Yes	Yes
DC switch (solar)	Yes	Yes	Yes	Yes	Yes
Surge Protection	DC Type II / AC Type II	DC Type II / AC Type II	DC Type II / AC Type II	DC Type II / AC Type II	DC Type II / AC Type II
PID recovery function	Yes	Yes	Yes	Yes	Yes
On-grid parallel	Master-slave mode	Master-slave mode	Master-slave mode	Master-slave mode	Master-slave mode
Battery input reverse polarity protection	Yes	Yes	Yes	Yes	Yes
General Data					
Topology (solar / battery)			Transformerless / Transformerless		
Degree of protection			IP65		
Dimensions (W * H * D)			615 *500 *245 mm		
Weight	34 kg		36 kg		37 kg
Mounting method	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket
Operating ambient temperature range	-25°C-60°C	-25°C-60°C	-25°C-60°C	-25°C-60°C	-25°C-60°C
Allowable relative humidity range (Non-condensing)	0% - 100 %	0% - 100 %	0% - 100 %	0% - 100 %	0% - 100 %
Cooling method	Natural convection			Fan cooling	
Max. operating altitude	2000 m	2000 m	2000 m	2000 m	2000 m
Noise(Typical)	35 dB (A)		50 dB (A)		
Display	LED	LED	LED	LED	LED
Communication			2 x RS485, WLAN, 2 x CAN, 4 x DI, 1 x DO, DRM		
DC connection type	MC4 (PV)	MC4 (PV)	MC4 (PV)	MC4 (PV)	MC4 (PV)
AC connection type	OT Terminals	OT Terminals	OT Terminals	OT Terminals	OT Terminals
Compliance		IEC / EN 62109, IEC / EN 61000-6, VDE4105 / EN50549 / TOR / CEIO-21			
Country of manufacture	China	China	China	China	China

* Depending on the connected battery
** Can be reached only if PV and battery power is sufficient

KEY FEATURES

OUTSTANDING PERFORMANCE

- **Max. 50A** battery charging and discharging design
- **200%** DC input overmatching
- Three-phase asymmetrical output under **100%** unbalanced loads

FLEXIBLE APPLICATION

- Support multi-parallel connection
- Support single-phase power output mode
- **100~700V** wide battery voltage range

SUPERB OFF-GRID LOAD

- Whole-home backup
- Support half-wave load and shock load
- **< 10ms** off-grid switching

FRIENDLY DESIGN

- **< 37KG**, lighter installation
- Die-casting design, fanless design, low noise
- Support AFCI
- Remote troubleshooting and program upgrading